Volume 6 | Number 4 Article 5

10-1-1945

Good Beef From Silage

C. C. Culbertson
Iowa State College

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By C. C. CULBERTSON

WHEN WE PLANNED our cattle feeding tests in the fall of 1944 at the Iowa Station we did not know that Iowa would have some soft corn this year. But these tests point the way for good gains and satisfactory finish with corn silage and a limited amount of shelled corn. This test was made with medium to good grade native steers.

In our feeding tests of the past season we fed two lots (Lots 1 and 2) of steers a full feed of corn silage and no corn for 120 days, then finished them with only 60 days of shelled corn full-fed. These steers were fed for 180 days and made an average gain for the full feeding period of approximately 1.8 and 1.9 pounds per steer daily.

The daily feed per steer of these two lots for the first 120 days was 1½ pounds of soybean oilmeal, 1 pound of alfalfa hay, 1 ounce of mineral mixture and block salt self-fed, in addition to corn silage full-fed. After 120 days the corn silage supply was gone and the steers were put on prairie grass hay and were got onto a full feed of shelled corn as quickly as possible. The soybean oilmeal was limited to 1 pound per steer daily.

Corn 76 Days, 106 Days

Another lot (Lot 3) of steers was fed for the first 90 days the same as Lots 1 and 2, and then were put on shelled corn for 76 days when they were marketed. The steers of this lot made an average daily gain of approximately 1.9 pounds. They were fed 166 days. Corn silage was discontinued after 120 days and prairie hay fed in its place.

Lot 4 steers were fed the same as those of Lot 3 except that they received shelled corn for 106 days. They were started on shelled corn after 60 days full-feeding of silage. They were fed a total of 166 days, the same as Lot 3, and made an average daily gain of about 1.8 pounds per steer daily.

Full-Fed Shelled Corn

Lots 5 and 6 received a full feed of shelled corn with a full feed of silage from the start. They, too, got 1 pound per steer daily of alfalfa hay, 1 ounce daily of mineral mixture and block salt self-fed. The only difference in the feeding of these two lots was that the steers in Lot 5 got 1½ pounds of soybean oilmeal and those of Lot 6 half as much—¾ pound per steer daily.

The steers of these two lots were fed for only 120 days when they were marketed. They made an average daily gain of 2.27 pounds daily per steer for Lot 5 (1½ pounds of soybean oilmeal) and 2.35 for Lot 6 (¾ pound daily of oilmeal).

Returns Per Steer

Because these steers were sold at different times of the year, it is difficult to make comparisons in the returns from the different rations, but for the first 120 days the average daily gains per steer were as follows:

Lot 1—No corn	1.94 pounds
Lot 2—No corn	2.08 pounds
Lot 3—Corn 30 days	2.06 pounds
Lot 4—Corn 60 days	1.96 pounds
Lot 5—Corn 120 days	2.27 pounds
Lot 6—Corn 120 days	2.35 pounds

It is evident that if you want the most rapid gains with finish, then you must feed more shelled corn. But any of these rations made good gains—they did the job and made satisfactory beef of A grade or better. It was necessary to carry the steers of Lots 1 and 2 for 180 days, or 6 months, to make them weigh about the same as and approximate the finish of those in Lots 5 and 6. The steers of Lots 5 and 6 were ready for market in 4 months—120 days. Those fed shelled corn for 76 and 106 days required 166 days to attain about the same weight and finish.

The steers were put on feed in this experiment last Nov. 22 when they weighed an average of 820 pounds each. The average steers in Lots 1 and 2, after 120 days on a full feed of corn silage plus 60 days of shelled corn, weighed 1139 and 1140 pounds when they were sold in Chicago May 24. Lot 3 steers weighed 1136 each when marketed May 10; those in Lot 4 weighed 1115 when sold May 10; Lot 5 steers weighed 1101 when sold March 29 and those in Lot 6, 1102 at the same date.

Cost of Gains

Feed was charged to the steers at the following prices: Shelled corn $1 per bushel; soybean oilmeal $60 per ton; corn silage $8 per ton; all hay $20 per ton; mineral mixture $60 per ton; and block salt $20 per ton.

On the basis of the feed costs only (bedding, veterinary expenses, interest, labor, death losses, etc., were not included), to put on 100 pounds of gain it cost for the various lots:

Lot 1—$14.84	Lot 4—$16.01
Lot 2—$14.65	Lot 5—$15.57
Lot 3—$15.00	Lot 6—$13.69

In arriving at these figures we found that the average steer had consumed for the entire period fed, the following amounts of feed:

	Days fed	No. 2 Sh. corn (bu.)	Silage (lbs.)	Hay (lbs.)	S. B. oil-meal (lbs.)
Lot 1	180	15.5	5506	320	255
Lot 2	180	15.2	5529	320	255
Lot 3	166	20.0	4534	256	241
Lot 4	166	24.5	3670	256	241
Lot 5	120	28.8	2133	120	180
Lot 6	120	28.3	2146	120	90

From our test we conclude that any of the methods of feeding will do the job, so if you have plenty of corn silage made from corn that looked as if it would not mature before frost, you can feed out medium to good grade steers satisfactorily with very little corn. It will take a little longer to put the finish on them if you limit the corn, but it can be done. The better the steers and the faster you want them to gain and finish, then the more corn you need to feed.